

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

INGENICO INC.,

*Plaintiff,*

v.

IOENGINE, LLC,

*Defendant.*

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Civil Action No. 18-826-WCB

**FILED UNDER SEAL**

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IOENGINE, LLC,

*Counterclaim Plaintiff,*

v.

INGENICO INC.,  
INGENICO CORP., and  
INGENICO GROUP S.A.,

*Counterclaim Defendants.*

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**MEMORANDUM OPINION AND ORDER**

In this patent case IOENGINE, LLC, alleged that Ingenico Inc., Ingenico Corp., and Ingenico Group S.A. (collectively, “Ingenico”) infringed several claims of U.S. Patent Nos. 9,059,969 (“the ’969 patent”) and 9,774,703 (“the ’703 patent”). At the conclusion of a trial held between July 11, 2022, and July 15, 2022, the jury found that Ingenico had infringed claim 3 of the ’969 patent and claims 56, 90, 101, 105, and 124 of the ’703 patent, and that Ingenico had not infringed claim 10 of the ’969 patent or claim 114 of the ’703 patent. The jury also found that claim 3 of the ’969 patent

and claims 56, 90, 101, 105, and 124 of the '703 patent were invalid for both anticipation and obviousness. Because Ingenico asserted invalidity as a defense and not as a counterclaim, the jury did not enter verdicts on the validity of claim 10 of the '969 patent or claim 114 of the '703 patent.

Following the trial, I entered judgment on the verdict. Dkt. No. 506. IOENGINE subsequently filed a motion for judgment as a matter of law under Federal Rule of Civil Procedure 50(b) and, in the alternative, for a new trial under Federal Rule of Civil Procedure 59(a). Dkt. No. 512. I held oral argument on IOENGINE's motion on December 6, 2022.

### **I. Background**

The '969 and '703 patents, which share a common specification, are directed to a device that the patents refer to as a "tunneling client access point" ("TCAP"). The patents describe the TCAP as "a highly secure, portable, [and] power efficient storage and data processing device." '969 patent, Abstract. In a preferred embodiment, the TCAP is a Universal Serial Bus ("USB") device that connects to an "access terminal" (e.g., a desktop computer, server, or mobile device). *Id.* at col. 3, ll. 46–54. In some embodiments, a user can "observe data stored on the TCAP without it being resident on the [access terminal]," a feature that "can be useful to maintain higher levels of data security." *Id.*, Abstract. In other embodiments, "the TCAP may tunnel data through an [access terminal] across a communications network to access remote servers." *Id.* Put more simply, the claimed inventions allow a user to employ processing and storage resources on the TCAP device while making use of the display and network connection associated with the access terminal.

Ingenico's accused products are mobile credit card readers used by merchants who run a payment processing software application on a smartphone or tablet. In addition, Ingenico provides a payment application, known as "RoamPayX," to a small number of its customers, and IOENGINE accused that application of infringing the asserted claims when it is used with certain card readers.

The majority of Ingenico’s customers do not use RoamPayX, but instead write their own applications using Ingenico’s Application Programming Interfaces (“APIs”) and/or Software Development Kits (“SDKs”).

At trial, Ingenico introduced evidence regarding a device known as the “DiskOnKey,” a portable USB drive that was manufactured and sold in the early 2000s by an Israeli company, M-Systems, Ltd.<sup>1</sup> Ingenico argued that the asserted claims of the ’969 and ’703 patents were anticipated by a version of the DiskOnKey device featuring a firmware upgrade application that allowed users to upgrade the firmware installed on DiskOnKey devices and an SDK designed for use with the DiskOnKey.<sup>2</sup> Ingenico also argued that the asserted claims would have been obvious in view of the combination of the DiskOnKey system and U.S. Patent Publication No. 2004/0039932 (“Elazar”).

## **II. Motion for Judgment as a Matter of Law**

In its motion for judgment as a matter of law, IOENGINE challenges various aspects of the jury’s verdict in this case. For the reasons set forth below, the motion for judgment as a matter of law is denied.

Federal Rule of Civil Procedure 50(a) provides that a motion for judgment as a matter of law may be granted if “the court finds that a reasonable jury would not have a legally sufficient evidentiary basis” to find for the non-movant on an issue. When a party renews its motion for

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<sup>1</sup> In 2006, M-Systems was acquired by SanDisk Corporation, which has since been acquired by Western Digital Technologies, Inc. *See* Dkt. No. 463 at 2.

<sup>2</sup> The DiskOnKey SDK is a library of functions that enables software developers to write programs that interact with physical DiskOnKey devices. Tr. 790:4–19. That is, the developers can use code from the DiskOnKey SDK to interact with the DiskOnKey firmware. Tr. 805:20–806:10. For instance, developers can call functions to retrieve the firmware version of a DiskOnKey device, or to retrieve the public key that is associated with a particular DiskOnKey. *See id.*; Tr. 814:10–24; DX333 at 36, 72. This opinion refers to the functionality of the physical DiskOnKey devices that can be leveraged by developers through the SDK as the “SDK capabilities.”

judgment as a matter of law after the conclusion of a jury trial, that party “must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied [by] the jury’s verdict cannot in law be supported by those findings.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (citation omitted). Substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Enplas Display Device Corp. v. Seoul Semiconductor Co., Ltd.*, 909 F.3d 398, 407 (Fed. Cir. 2018) (citation omitted).

IOENGINE raises four specific challenges to the jury’s verdict in its motion for judgment as a matter of law: (1) substantial evidence did not support a finding that the DiskOnKey device and its firmware upgrade application and SDK were prior art; (2) substantial evidence did not support a conclusion that Mr. McNulty’s invention date was later than July 26, 2001; (3) substantial evidence did not support a finding of anticipation or obviousness based on the DiskOnKey device and the firmware upgrade application; and (4) substantial evidence did not support a verdict of obviousness based in part on the Elazar reference.

#### **A. DiskOnKey as Prior Art Under 35 U.S.C. § 102(b)**

IOENGINE first argues that substantial evidence did not support a conclusion that the DiskOnKey system was prior art for purposes of section 102(b). Specifically, IOENGINE contends that there was insufficient evidence from which the jury could conclude that the DiskOnKey and its associated firmware upgrade application and SDK capabilities were either on sale or in public use (or both) prior to the critical date of March 23, 2003.<sup>3</sup>

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<sup>3</sup> The version of section 102(b) that applies to this case is the version that pre-dated the Leahy-Smith America Invents Act of 2011 (“AIA”), because the patents in suit have effective filing dates prior to March 16, 2013, the effective date of the amendments to section 102(b) made by the 2011 Act.

### 1. On Sale

Under pre-AIA section 102(b), a device is prior art to a patented invention if it was “on sale in this country, more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b) (2006). IOENGINE argues that there was insufficient evidence at trial to support a finding that the firmware upgrade application was “on sale” for purposes of section 102(b). Specifically, IOENGINE argues that “the evidence indicated only that some version of the firmware upgrade application may have been separately made available for download—ostensibly for free and without consideration,” and that there was no evidence that the firmware upgrade application was ever sold in combination with a physical DiskOnKey device. Dkt. No. 513 at 20.

That argument mischaracterizes the evidence at trial regarding the DiskOnKey and the firmware upgrade application. Ingenico introduced evidence that the firmware upgrade application was initially made available to users in July 2002 via a download link on the M-Systems website. *See, e.g.*, DX330. In addition, Ingenico introduced evidence that M-Systems began including the firmware upgrade application on physical DiskOnKey devices that were sold to customers at least as early as November 8, 2002. *See* DX089; Tr. 782:3–783:21. Specifically, Ingenico introduced a page from the M-Systems website that stated: “[The] DiskOnKey already comes with several applications that demonstrate [the] terrific new potential [of the DiskOnKey]. Users can secure their devices and files using the KeySafe application, or upgrade their firmware using the Upgrade program.” DX089. Based on that webpage, which was available at least by November 8, 2002, the jury reasonably could have found that the firmware upgrade application was included on physical DiskOnKey devices that were sold to customers from at least that date on.

Examination of the sales records introduced by Ingenico shows that M-Systems made numerous sales of the DiskOnKey in the United States in late 2002 and early 2003. Ingenico

introduced a spreadsheet of M-Systems' sales records, which listed 139 invoices for sales of DiskOnKey products to customers in the United States between November 8, 2002, and December 31, 2002. DX316. A second spreadsheet introduced by Ingenico showed that M-Systems listed 352 invoices for sales of DiskOnKey products to customers in the United States between January 1, 2003, and the critical date of March 23, 2003, one year before the priority date for the '969 and '703 patents. DX317. Those spreadsheets listed the number of sales, the identity and location of the purchasers, and the price paid for each purchase.<sup>4</sup> From those records and the M-Systems November 8, 2002, webpage, the jury reasonably could have concluded that M-Systems sold DiskOnKey devices that included the firmware upgrade application to customers in the United States prior to March 23, 2003. IOENGINE is thus incorrect in contending that "no evidence indicated that [physical DiskOnKey devices] were sold in combination with the firmware upgrade application." See Dkt. No. 513 at 20.

Apart from the firmware upgrade application, IOENGINE argues that the DiskOnKey SDK was neither sold nor offered for sale. Dkt. No. 513 at 23 n.25. IOENGINE raised this argument only in a footnote and therefore has forfeited it. See *Nw. Univ. v. Universal Robots A/S*, No. 21-149, 2022 WL 903892, at \*6 & n.26 (D. Del. Mar. 28, 2022) ("[C]ourts traditionally do not consider arguments presented entirely in footnotes.") (citing cases); *Gavrieli Brands LLC v. Soto Massini (USA)*, No. 18-462, 2020 WL 1443215, at \*5 (D. Del. Mar. 24, 2020); *Horatio Washington Depot Techs. LLC v. TOLMAR, Inc.*, No. 17-1086, 2018 WL 5669168, at \*13 n.12 (D. Del. Nov. 1, 2018); *Campbell v. Sussex Cnty. Fed. Credit Union*, No. 10-710, 2015 WL 3918946, at \*1 (D. Del. June 22, 2015) ("The

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<sup>4</sup> The spreadsheets list all transactions; the numbers of sales listed above include only those transactions that constituted sales, i.e., transactions for payment to M-Systems. A number of those sales transactions were for multiple DiskOnKey devices.

Court will not address issues raised in footnotes . . . .”); *see also SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (“[A]rguments raised in footnotes are not preserved.”).

Even if IOENGINE had not forfeited that argument, it would be without merit, for the following reasons: Ingenico’s expert, James Geier, explained that the DiskOnKey SDK is a set of functions that allows a software developer to access certain functionality on the DiskOnKey device. *See* Tr. 805:8–806:5.<sup>5</sup> For example, the SDK may enable a developer to obtain the firmware version of a DiskOnKey device, Tr. 806:6–10; DX333.36, or to obtain the public key of a DiskOnKey device, Tr. 814:6–815:12; DX333.72. Mr. Geier relied on the DiskOnKey SDK documentation, which was in evidence, DX333, to illustrate that the DiskOnKey device had certain capabilities, such as authentication. *See* Tr. 811:5–12, 812:14–818:22.

With respect to authentication (or verification) capability, which was recited in claim 3 of the ’969 patent and claims 56 and 105 of the ’703 patent, Mr. Geier testified that the DiskOnKey firmware upgrade application would authenticate the DiskOnKey device using an authentication protocol based on Public Key Infrastructure (“PKI”). Tr. 811:5–12, 812:12–18. To support that opinion, Mr. Geier relied on multiple disclosures in the DiskOnKey SDK documentation. First, the documentation stated that “[t]he DiskOnKey enables PKI-based authentication and signing in a highly secure environment.” DX333.71; *see also* Tr. 818:12–18. Second, the documentation indicated that software developers could use a function called “getPublicKey” to obtain the public key of a DiskOnKey device. DX333.72; *see also* Tr. 814:6–815:12. The documentation added that “the DiskOnKey public key is unique for each DiskOnKey.” DX333.72; *see also* Tr. 815:13–816:2. Third, Mr. Geier added that “we know from the SDK” that “there is a private key sitting on the

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<sup>5</sup> Citations to “Tr.” refer to the transcript of the jury trial, which can be found at Dkt. Nos. 507–11.

DiskOnKey” that would be used for PKI-based authentication. Tr. 816:3–818:8. In short, Mr. Geier relied on the SDK documentation to establish that the physical DiskOnKey device would have the capability to authenticate using PKI.

The critical question is whether the DiskOnKey devices that were sold in the United States prior to March 23, 2003, had SDK capabilities. The jury heard testimony from Eyal Sobol, a Western Digital employee familiar with the M-Systems products, who testified that the SDK documentation accurately described the capabilities of the DiskOnKey device. Tr. 735:5–8, 744:18–21. The jury also saw evidence indicating that the SDK capabilities became available on the DiskOnKey in September 2002. *See* DX307; DX333.1. Based on the evidence before it, the jury could reasonably have concluded that the DiskOnKey devices that were sold in the United States after September 2002 had SDK capabilities, and thus that the DiskOnKey devices that were on sale during late 2002 and early 2003 satisfied all the limitations of the claims that the jury found invalid.

IOENGINE argues that the M-Systems press releases regarding the DiskOnKey firmware upgrade application and SDK capabilities were, at most, advertisements and did not constitute offers for sale under section 102(b). While the press releases by themselves were not offers for sale, they were highly relevant because they showed that the firmware upgrade application and SDK capabilities were available for the DiskOnKey as early as July and September of 2002. Moreover, IOENGINE’s argument directed to the press releases does not undermine Ingenico’s proof of invalidating sales prior to the critical date, given the clear and specific evidence that numerous sales of the DiskOnKey devices with the firmware upgrade application and SDK capabilities were made in the United States at least as early as November 8, 2002. The sales made between November 8, 2002, and March 23, 2003, triggered the on-sale bar of section 102(b) without regard to whether there were any separate offers for sale during or before that period. In particular, the evidence was



sufficient to show that the DiskOnKey devices that were sold during that period had processors, the firmware upgrade applications, and SDK capabilities. Accordingly, IOENGINE's motion for judgment as a matter of law with respect to the on-sale bar is denied.

## 2. Public Use

IOENGINE argues that there was insufficient evidence to conclude that the DiskOnKey and its associated firmware upgrade application and SDK capabilities were in public use prior to March 23, 2003. Under pre-AIA 35 U.S.C. § 102(b), a device is prior art to a patented invention if it was "in public use . . . in this country, more than one year prior to the date of the application for patent in the United States." Because substantial evidence supports a conclusion that the DiskOnKey with the firmware upgrade application and SDK capabilities is prior art by virtue of being on sale, the judgment can be upheld even if the evidence is insufficient to support the jury's verdict on the public use issue. *See Cordance Corp. v. Amazon.com, Inc.*, 658 F.3d 1330, 1339 (Fed. Cir. 2011) ("A general jury verdict of invalidity should be upheld if there was sufficient evidence to support any of the alternative theories of invalidity."); *see also i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 849 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011) ("We will uphold . . . a [jury] verdict [of infringement] if there was sufficient evidence to support any of the plaintiff's alternative factual theories; we assume the jury considered all the evidence and relied upon a factual theory for which the burden of proof was satisfied."); *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1222 (Fed. Cir. 2014). In any event, there is substantial evidence to support a finding that the DiskOnKey system was in public use prior to March 23, 2003.

In IOENGINE's view, the evidence Ingenico presented to the jury was insufficient to establish public use because the evidence failed to demonstrate that there was an "actual use by someone at some point" of either the firmware upgrade application or the SDK prior to March 23,

2003. Dkt. No. 513 at 14 (citing *Minn. Min. & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1303 (Fed. Cir. 2002)). While IOENGINE concedes that the jury saw evidence that the DiskOnKey firmware upgrade application was made available to the public on the M-Systems website, IOENGINE argues that there is no evidence from which a jury could conclude that the software or SDK was ever downloaded from the website or used by anyone. In particular, IOENGINE argues that the jury heard no evidence “that anyone ever accessed the site, downloaded the application, or actually used [the firmware upgrade application], much less in this country.” Dkt. No. 513 at 14.

To begin with, IOENGINE’s argument is based on a misapprehension as to the nature of the public use evidence. The evidence of public use of the firmware upgrade application and the SDK capabilities was not limited to the use of those features by persons who downloaded material from M-Systems’ website; it included the evidence that large numbers of sales were made in late 2002 and early 2003 of DiskOnKey devices that already contained those features. Moreover, the case law on which IOENGINE relies does not support its conclusion that the evidence of public use was legally insufficient.

In its briefs, IOENGINE relies heavily on the *Minnesota Mining* case to support its argument that the evidence of public use is insufficient, but a close examination of that case shows that it does not support IOENGINE’s position. The defendants in *Minnesota Mining* asserted that a substance called “Ricoseal,” which was manufactured by a third party, embodied the asserted claims and was in public use because “samples of Ricoseal were sent to various corporations.” *Minn. Min.*, 303 F.3d at 1305, 1307. The record in that case showed, however, that the Ricoseal product was a two-part composition that needed to be mixed together before being used. *Id.* at 1307. The asserted claim also required that the Ricoseal composition be used with a “signal transmission device,” and the plaintiff pointed out that the defendants presented no evidence “that the mixture was applied to a

signal transmission device.” *Id.* at 1298, 1307. The failure of proof, therefore, was based not only on the fact that there was no evidence that the corporations receiving the samples of Ricoseal ever mixed the two components together, but also on the absence of evidence that any of the recipients of Ricoseal ever used it with a signal transmission device, even assuming any of the recipients ever mixed the components together. That point is underscored by the fact that the defendants argued to the Federal Circuit that Ricoseal was merely “*intended* to be used with a signal transmission device.” *Minn. Min. & Mfg. Co. v. Chemque, Inc.*, Nos. 00-1429, 00-1517, Appellees and Cross-Appellants’ Br. 17 (Fed. Cir. Feb. 7, 2001) (emphasis added). The evidence presented by the defendants in *Minnesota Mining* therefore fell short of showing that there was any public use of the product recited in the asserted claim. The evidence of public use in this case is considerably stronger, as discussed in more detail below.

IOENGINE seizes on a statement in the *Minnesota Mining* court’s discussion of prior use under section 102(a). After finding that the defendants had not “directed this court to any record evidence showing that anyone ever used Ricoseal,” the court noted that “there is not substantial evidence of use of the Ricoseal product; there is no direct evidence of its use.” 303 F.3d at 1307. From that statement, IOENGINE infers that direct evidence is required for proof of public use under section 102(b), and that circumstantial evidence, no matter how compelling, can never suffice to prove public use under that statute. IOENGINE’s argument overreads the court’s opinion in *Minnesota Mining*.

The court’s reference to “no direct evidence” was a characterization of the lack of evidence in that case as to prior knowledge of the invention under the “known or used” requirement of section 102(a). Even apart from the fact that the court was addressing section 102(a), not section 102(b), the context of the court’s statement makes clear that the court was not setting forth a proof requirement

for all cases. That is, the court’s language cannot fairly be read as establishing a bright-line rule that there must always be direct evidence of prior use in order to satisfy the public use requirement of section 102(b) and that circumstantial evidence will never suffice.<sup>6</sup>

The proper test for public use under section 102(b) is simply whether the invention was “accessible to the public” or “commercially exploited.” *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1380 (Fed. Cir. 2005). In assessing whether that standard was met, “[e]ither direct or circumstantial evidence corroborating public use may be sufficient for a party to meet its burden of proof.” *TransWeb, LLC v. 3M Innovative Props. Co.*, 16 F. Supp. 3d 385, 393 (D.N.J. 2014), *aff’d*, 812 F.3d 1295 (Fed. Cir. 2016).

Courts have treated circumstantial evidence of public accessibility such as press releases, download websites, and advertisements as appropriate evidence of public use. *See, e.g., Dzinesquare, Inc. v. Armano Luxury Alloys, Inc.*, No. 14-cv-1918, 2014 WL 12597154, at \*6 (C.D. Cal. Dec. 22, 2014) (holding, on a motion for summary judgment, that evidence of a prior art product being advertised in a catalog and on Facebook was sufficient to create a triable issue regarding public use); *Phoenix Sols., Inc. v. W. Interactive Corp.*, No. 09-cv-8156, 2010 WL 6032841, at \*7 (C.D.

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<sup>6</sup> The distinction between direct and circumstantial evidence, which is often unclear, is of questionable importance in this context, since “an implication that circumstantial evidence is weaker than direct evidence is incorrect.” *United States v. Godinez*, 7 F.4th 628, 639 (7th Cir. 2021). Rather, “[c]ircumstantial evidence is of equal probative value to direct evidence and in some cases is even more reliable.” *Murrell v. Frank*, 332 F.3d 1102, 1117 (7th Cir. 2003); *United States v. Andrino*, 501 F.2d 1373, 1378 (9th Cir. 1974). It therefore would not be proper to overturn a jury’s invalidity verdict solely on the basis that the evidence the jury heard would be better classified as circumstantial rather than direct evidence.

IOENGINE points out that the court in *Minnesota Mining* stated that public use requires “actual use by someone at some point.” 303 F.3d at 1307. That is not in dispute. What the parties disagree about is whether proof of such use must be by direct evidence or may be by circumstantial evidence. In this case, the circumstantial evidence is sufficient to show that there was actual use of the DiskOnKey device, combined with the firmware upgrade application and the SDK capabilities, in the United States “by someone at some point.”

Cal. Aug. 25, 2010), *aff'd*, 438 F. App'x 897 (Fed. Cir. 2011) (holding, on a motion for summary judgment, that evidence that a prior art system was “regularly publicized . . . through conferences, workshops, and published articles,” and “*could be* launched anywhere through the Web or over the telephone” was evidence of public use (emphasis added)); *Finjan, Inc. v. Symantec Corp.*, No. 10-cv-593, 2013 WL 5302560, at \*6–7 (D. Del. Sept. 19, 2013), *aff'd*, 577 F. App'x 999 (Fed. Cir. 2014) (considering, among other evidence, user manuals and press releases that supported a finding of public use).

Ingenico introduced various items of evidence that could support a finding by clear and convincing evidence that the firmware upgrade application was in public use. First, as noted, the large numbers of U.S. sales of the DiskOnKey with the firmware upgrade application already loaded onto the device provided strong circumstantial evidence that devices containing that feature were in use in this country. Second, even ignoring those sales, the jury saw an earlier email that was sent by M-Systems to its employees regarding the firmware upgrade application for the DiskOnKey. DX330. That email, which was accompanied by a DiskOnKey “ReadMe” file, DX331, containing details about the functionality of the firmware upgrade application, encouraged the employees to “pass this information along to your partners, customers, reps and distributors,” and indicated that the application could “be downloaded from the [DiskOnKey] website . . . starting from [July 10, 2002].” *Id.* Third, the jury saw a July 11, 2002, press release issued by M-Systems in Fremont, California, that promoted the launch of the firmware upgrade application and explained the benefits of the application. *See* DX097. Fourth, the jury saw screenshots of the M-Systems website indicating that the application was available for download. DX402. Fifth, Mr. Geier testified that “there would be . . . many people that would think they need to upgrade the firmware and would be downloading

the firmware [upgrade application]” and the Readme file from the M-Systems website. Tr. 1142:15–25.

There was also evidence in the record sufficient to support a finding that the SDK capabilities of the DiskOnKey were in public use. First, as noted, the devices sold at least as of November 8, 2002, had the SDK capabilities. Second, the jury saw a press release from September 2002 announcing the launch of the DiskOnKey SDK. DX307. Third, the jury saw a screenshot of an M-Systems web page that described the SDK and allowed users to download a data sheet of the SDK. DX403. Fourth, the jury saw an 84-page manual detailing the functionality of the SDK that was dated in September 2002, like the press release. DX333. Fifth, the jury heard testimony from Mr. Sobol, who testified that the information in the SDK manual “reflect[ed] how the product actually function[ed].” Tr. 735:5–8; *see also* Tr. 744:14-21.

IOENGINE argues that there was insufficient evidence that the SDK was in public use because the M-Systems press release announcing the launch of the SDK indicated that the SDK would be made available only to “select partners and software development companies” upon request. Dkt. No. 513 at 16 n.16 (citing DX307). That argument was raised only in a footnote and is therefore forfeited. *See, e.g., Nw. Univ.*, 2022 WL 903892, at \*6 & n.26. In any event, the argument is unpersuasive.

First, as discussed with respect to the on-sale bar in section II.A.1, the key question is not whether the SDK itself was in public use but rather is whether the DiskOnKey devices that were in public use had SDK capabilities prior to March 23, 2003. The evidence that the SDK was available as of September 2002 and that its documentation reflected how the DiskOnKey devices “actually function[ed]” is sufficient evidence for a jury to find that the DiskOnKey devices that were in public use had SDK capabilities. *See* Tr. 735:5–8; DX307; DX333; DX403.

Second, DX307 would not undermine a finding that the SDK itself was in public use. As discussed in section III.A.3 below, public use “includes any use of the claimed invention by a person other than the inventor who is under no limitation, restriction, or obligation of secrecy to the inventor.” *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1297 (Fed. Cir. 2002). Thus, although DX307 indicates that the SDK itself was available only upon request, the press release is circumstantial evidence that someone other than the inventors of the DiskOnKey used the DiskOnKey SDK. That evidence, combined with the fact that a datasheet for the SDK was made available to the public on the M-Systems website, DX403, is sufficient to support a conclusion that the SDK was used by a person other than the inventor who was not under any obligation of secrecy.

At bottom, the evidence is sufficient to support a finding that the firmware upgrade application and SDK were accessible to the public. Although there is no direct evidence that any particular person used or downloaded the firmware upgrade application or SDK capabilities, a jury is entitled to “make reasonable inferences” about whether the evidence demonstrated a public use. *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958, 967 (Fed. Cir. 2020). Indeed, the role of circumstantial evidence is particularly important in a case such as this one, “where so much time has elapsed between the key events and the suit.” *TransWeb*, 16 F. Supp. 3d at 393. In this case that length of time is approximately 20 years.

IOENGINE argues that even if there was sufficient evidence to support a finding of public use generally, the evidence did not establish that there was any public use of the features of the invention in the United States. The evidence showed that although M-Systems leased space for sales offices in California, much of M-Systems’ business activity was conducted in Israel. Accordingly, IOENGINE contends that there is no evidence that the firmware upgrade application was ever

downloaded or used in the United States, or that the claimed “communications network node” was ever known, used, or on sale in this country.

Based on the record evidence, the jury in this case could readily have concluded that the firmware upgrade application was used in the United States. To begin with, the M-Systems sales spreadsheets identified hundreds of sales of DiskOnKey devices with the firmware upgrade to customers in the United States as early as November 2002. In addition, the press release announcing the firmware upgrade application was in English and was released from Fremont, California. DX097. The email that encouraged M-Systems employees to notify others about the firmware upgrade application was sent to M-Systems employees in this country. DX330. And the webpage that contained the download link to the firmware upgrade application was in English and would have been accessible by American users. DX402; *see also Finjan*, 2013 WL 5302560, at \*7 (Evidence that an online bulletin board regarding a prior art software product “was accessible to people in the United States who had modems” supported a finding of public use even though a manual suggested that the product was only available in the Netherlands.). In view of that evidence, a jury could permissibly have found that the public use of the firmware upgrade application occurred in the United States.

IOENGINE next argues that it was not clear that all the evidence Ingenico relied upon with respect to the firmware upgrade application represented the same version of that application. In particular, IOENGINE argues that Ingenico’s evidence shows at most that “some version of the application was available for download online.” Dkt. No. 513 at 21.

The jury could have concluded from the trial record that the firmware upgrade application was encompassed in a single version of software. The evidence showed that the Readme file relied upon by Mr. Geier was the same file that was sent to M-Systems employees for distribution in July



2002. Dkt. No. 523 at 20; DX330; DX331. And the metadata for the firmware upgrade application lists a last modified date of June 26, 2002, which is within the same timeframe. DX329.

Lastly, IOENGINE argues that the evidence did not support a finding of public use of the invention because the DiskOnKey “would not have informed the public of Mr. McNulty’s invention.” Dkt. No. 513 at 17. As discussed in further detail below with respect to the jury instructions, a public use need not be informing to be invalidating prior art. All that is required is that the public use “related to a device that embodied the invention.” *Zenith Elecs. Corp. v. PDI Commc’n Sys.*, 522 F.3d 1348, 1356 (Fed. Cir. 2008). IOENGINE’s argument on that point therefore fails.<sup>7</sup>

In sum, there is substantial evidence to support a jury finding that the DiskOnKey device and its associated firmware upgrade application and SDK capabilities were in public use prior to March 23, 2003. IOENGINE’s motion for judgment as a matter of law is therefore denied with respect to public use.

### **B. DiskOnKey As Prior Art Under 35 U.S.C. § 102(a)**

IOENGINE next argues that there was not substantial evidence to conclude that the DiskOnKey system was prior art under the pre-AIA version of 35 U.S.C. § 102(a). Section 102(a)

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<sup>7</sup> IOENGINE quotes an internal M-Systems presentation from 2003 that stated: “Normally there is no need to use DOK Upgrade . . . . We hope there will never be a need to use it.” Dkt. No. 513 at 16 (citing DX336, at 5–6). According to IOENGINE, that is evidence that the upgrade application was not in use. IOENGINE’s argument misses the point. As indicated, the upgrade application was incorporated in the DiskOnKey devices at least as early as November 2002. The application was therefore in public use even though the owner of a DiskOnKey might seldom (or never) need to actually employ the upgrade application to upgrade his DiskOnKey device. Likewise, if even a single person downloaded the firmware upgrade application from the M-Systems website, the application would have been in public use regardless of whether that person ever ran the application to update the firmware of a DiskOnKey device. What is required is that there was public accessibility to the upgrade application, not that any person in possession of a DiskOnKey actually used the upgrade application to update the DiskOnKey firmware.

provides that a device is prior art to a patented invention if the device was “known or used by others in this country . . . before the invention thereof by the applicant for patent.” IOENGINE contends that the DiskOnKey with the firmware update was not “known by or used by others” for purposes of section 102(a) for the same reasons that it was not “on sale or in public use” for purposes of section 102(b). In addition, IOENGINE argues that there was no substantial evidence at trial to support a conclusion that Mr. McNulty’s invention date was later than July 26, 2001.<sup>8</sup>

At trial, Mr. McNulty testified that he conceived of the invention in June of 2001. IOENGINE sought to support Mr. McNulty’s claim of conception by pointing to a July 2001 memo prepared by Mr. McNulty entitled “Portable Devices Rule” (“the PDR memo”). PX235. IOENGINE argued that the following statement in the PDR memo evidenced conception of the “portable device identifier information” and “verification” limitations of several of the asserted claims: “Hi. I am here from a person’s pocket and I would like to copy your content.” *Id.* However, as Mr. Geier explained on behalf of Ingenico, that language offered “no indication of whether or not that [device could] be used for any sort of authentication or verification with the server,” and rather “just ma[de] the notice that I want to copy your content . . . like a request to copy content.” Tr. 866:12–867:14. To the

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<sup>8</sup> IOENGINE contends that Ingenico waived its prior art argument under section 102(a) when in closing argument Ingenico’s counsel stated, in connection with his section 102(b) argument, that the DiskOnKey was prior art “simply because it’s dated before March 23, 2003. Mr. McNulty’s invention date [is] irrelevant to that. Mr. McNulty’s conception date is irrelevant to that. Mr. McNulty’s reduction to practice is irrelevant to that. If it’s before March 23, 2003, it is prior art.” Tr. 1362 at 5–11. That argument, and the point that Mr. McNulty’s conception and reduction to practice were irrelevant was focused on the requirements of section 102(b). It did not constitute an abandonment of Ingenico’s section 102(a) argument. Moreover, the Federal Circuit has specifically rejected the argument that a “defendant[’s] failure to explicitly argue to the jury that the defendants should prevail on a diligence theory resulted in the diligence theory not being before the jury.” *Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261 F.3d 1356, 1363 (Fed. Cir. 2001). Applying Third Circuit law, the Federal Circuit concluded that the Third Circuit “does not require that the defendant explicitly argue a theory in order for it to be before the jury.” *Id.* at 1364.

extent that Mr. McNulty and IOENGINE's expert, Dr. Aviel Rubin, testified otherwise, the jury was entitled to reject that testimony in favor of Mr. Geier's testimony that the PDR memo did not disclose the "portable device identifier" and "verification" limitations, one of which is recited in each of the claims the jury found invalid.

Even if the PDR memo provided adequate evidentiary support for Mr. McNulty's claim of conception, the jury heard evidence that could support a conclusion that Mr. McNulty was not diligent in reducing his inventions to practice. Mr. McNulty testified that he worked "nonstop" on his inventions, "every evening, every weekend, all weekend." Tr. 174:10–11. In addition, IOENGINE offered corroborating evidence that Mr. McNulty may have worked on reducing his invention to practice in April 2002, February 2003, May 2003, July through August September 2003, and December 2003 through January 2004. But the corroborating evidence did not account for significant gaps in Mr. McNulty's efforts, such as between July 2001 and April 2002, and between April 2002 and February 2003. As the Federal Circuit has held, "there need not necessarily be evidence of activity [by the inventor] on every single day," but the evidence "must show that the . . . inventor was diligent throughout the entire critical period." *Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261 F.3d 1356, 1369 (Fed. Cir. 2001). Even if the jury concluded that Mr. McNulty conceived of his inventions as early as July 2001, it could properly have found Mr. McNulty's claim that he worked "nonstop" on his inventions after that to be implausible. Moreover, based on the gaps in the corroborating evidence the jury could have found that Mr. McNulty was not diligent in reducing his invention to practice before March 23, 2004, when he constructively reduced the invention to practice by filing his initial patent application. Accordingly, IOENGINE's motion for judgment as a matter of law is denied with respect to IOENGINE's section 102(a) arguments.

Of course, even if the evidence did not support the conclusion that the DiskOnKey system was prior art under section 102(a), the verdict of invalidity would still have to be upheld based on section 102(b), discussed above. As noted above, “[a] general jury verdict of invalidity should be upheld if there was sufficient evidence to support any of the alternative theories of invalidity.” *Cordance*, 658 F.3d at 1339; *see generally Griffin v. United States*, 502 U.S. 46, 56–60 (1991). Because substantial evidence supports a finding that the DiskOnKey system was prior art under section 102(b), by being in public use or on sale or both, the fact that the DiskOnKey system might not qualify as prior art under section 102(a) is irrelevant.

### **C. Anticipation and Obviousness**

IOENGINE argues that even if the DiskOnKey, as used with the firmware upgrade application and the SDK, is prior art under section 102, there is insufficient evidence that the DiskOnKey either anticipates or renders obvious the asserted claims of the ’969 and ’703 patents. First, IOENGINE contends that there was no evidence that the firmware upgrade application supported the claimed “program code” limitations. Second, IOENGINE contends that there was no evidence of a motivation to combine the firmware upgrade application with the DiskOnKey SDK.

With respect to the “program code” limitations, IOENGINE points out that the DiskOnKey devices contained an application-specific integrated circuit (“ASIC”), which IOENGINE contends may have been used to implement the firmware upgrade feature. If that were true, IOENGINE contends, a requirement of the claims would not be met: The processor on the DiskOnKey would not have executed any program codes when updating the device firmware, even though the claims require that certain program codes be executed by the processor on the portable device. *See, e.g.*, Tr. 1071:3–11.

IOENGINE points to no evidence that an ASIC, and not a processor, was used to implement the firmware upgrade application on the DiskOnKey device.<sup>9</sup> At most, the jury heard testimony that the firmware upgrade feature of the DiskOnKey initially existed “not as an application.” *See* Tr. 700:24–701:8. That evidence, however, does not mean that the firmware upgrade feature would have been implemented without using the device’s processor. *See id.* To the contrary, Mr. Geier testified about how certain functions of the firmware upgrade application would have been implemented using code running on the DiskOnKey processor. *See, e.g.,* Tr. 791:11–792:1, 812:22–813:16, 834:8–22, 842:18–843:4. Two former M-Systems employees, Gidi Elazar and Eyal Sobol, added testimony that would support such an inference. *See* Tr. 718:15–18 (Mr. Elazar acknowledging that “in order for the DiskOnKey to respond to a request,” it would “have to run some kind of code on the DiskOnKey”); Tr. 737:16–19 (Mr. Sobol testifying that authentication functions were “integrated in the firmware of the DiskOnKey”). In any event, the product specification for the DiskOnKey indicates that the ASIC comprises the component that Mr. Geier identified as the device’s processor. *See* DX322.6 (including the ARM-7 processor in a block labeled “Titan ASIC”); Tr. 785:6–787:23. Based on the evidence, a reasonable jury could have found that the DiskOnKey executed the claimed program codes on the DiskOnKey processor. IOENGINE’s arguments on this point are unpersuasive.

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<sup>9</sup> The only evidence that IOENGINE relies on to support its argument on this point is the following statement in a PowerPoint presentation under the heading “How does DOK Upgrade work?”: “The DiskOnKey ASIC prevents the ARM 7 microprocessor from running code that is not digitally signed by M-Systems.” DX336.4. That statement suggests at most that the ASIC might play some role in ensuring that unauthorized firmware is not downloaded to the DiskOnKey. It does not indicate that any functions associated with downloading and installing firmware using the firmware upgrade application would be performed by the ASIC.

With respect to the motivation to combine the firmware upgrade application and the SDK, IOENGINE has forfeited any argument that the DiskOnKey combined with the firmware upgrade application and the SDK is not a single prior art reference that could anticipate the asserted claims. A motivation to combine is required only when there are two separate references being used in a proposed obviousness combination. *See Cross Med. Prod., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1321 (Fed. Cir. 2005) (“In determining whether a combination of old elements is non-obvious, the court must assess whether, in fact, an artisan of ordinary skill in the art at the time of invention, with no knowledge of the claimed invention, would have some motivation to combine the teachings of one reference with the teachings of another reference.”). In this case, the final jury instructions clearly indicated that those three items were to be interpreted as a single prior art reference, and IOENGINE failed to object to that instruction. Dkt. No. 497 at 19 (referring to the DiskOnKey system: “Ingenico also contends that that the following *item is* prior art . . . .” (emphasis added)). Accordingly, the question whether there was a motivation to combine the SDK with the firmware upgrade application does not affect my resolution of the present motion.<sup>10</sup>

#### **D. Obviousness Based on Elazar and the DiskOnKey Device**

IOENGINE argues that there was not substantial evidence to support the verdict of obviousness based in part on the Elazar reference. As an initial point, IOENGINE notes that Elazar

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<sup>10</sup> In its motion for summary judgment, IOENGINE argued that the DiskOnKey could not serve as an anticipatory reference because the evidence about the DiskOnKey related to different versions of that device. I rejected that argument on the ground that “a reasonable jury could find that documentation describing various versions of the DiskOnKey device is representative of a single prior art device.” Dkt. No. 449 at 75. As noted above, there is substantial evidence that the version of the firmware upgrade application and the DiskOnKey that were available prior to March 23, 2003, contained the limitations of the asserted claims. IOENGINE’s post-trial argument that the SDK was a separate reference from the firmware upgrade application was not raised at summary judgment nor at the instruction conference, so that argument has been forfeited.

was published after March 23, 2003, so it would be prior art only if the jury found that Mr. McNulty was not entitled to an invention date of July 26, 2001. Dkt. No. 513 at 33. That is true, but substantial evidence would support a finding that Mr. McNulty either did not conceive of his invention until after July 26, 2001, or was not diligent between July 2001 and March 2004. Accordingly, IOENGINE's argument as to the publication date of the Elazar reference is insufficient to reject Elazar as a basis for an obviousness verdict.

IOENGINE also argues that there was no motivation to combine Elazar with the DiskOnKey firmware upgrade application. As noted, IOENGINE has forfeited the argument that the firmware upgrade application is a separate prior art reference from the DiskOnKey device itself. Moreover, the jury heard evidence at trial suggesting that a skilled artisan would have been motivated to combine the DiskOnKey with the Elazar reference. For example, Mr. Geier testified that a skilled artisan would have been motivated to use the authentication mechanism discussed in the Elazar reference with respect to the firmware on the DiskOnKey device. Tr. 861:17–862:24. That evidence would be sufficient for a jury to conclude that a skilled artisan would have been motivated to combine Elazar with the DiskOnKey.

Even absent consideration of the Elazar reference, the jury's obviousness verdicts must stand. To the extent IOENGINE argues that the jury's verdicts on obviousness must be overturned because the jury could not have found obviousness without the Elazar reference, that argument fails. The jury could have viewed the claimed inventions as obvious in view of the DiskOnKey system alone. *See, e.g., Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1376 (Fed. Cir. 2019) (affirming a PTAB obviousness finding "in view of a single reference").

As in the case of Mr. McNulty's conception and diligence, the jury's general verdicts of invalidity can be sustained even if the evidence is insufficient to support this theory of invalidity.

Because I have found that substantial evidence supports a finding that the DiskOnKey system was prior art under section 102, the jury's verdict could be upheld even if Elazar were not a proper ground on which the jury could have based its verdict of invalidity. *See Cordance*, 658 F.3d at 1339.

### **III. Motion for New Trial**

In its motion for a new trial, IOENGINE argues that there were errors in the court's final jury instructions that may have misled the jury into returning a verdict of invalidity as to the asserted claims that the jury found to be infringed. IOENGINE also argues that *inter partes* review estoppel ("IPR estoppel") precluded Ingenico from offering evidence of the DiskOnKey firmware upgrade application at trial. For the reasons set forth below, the motion for a new trial is denied.

#### **A. Jury Instructions**

The standard for ordering a new trial based on a claim of erroneous jury instructions is high. "A new trial on the ground of erroneous jury instructions is permissible only when it is clear that an error in [the] instructions as a whole was such as to have misled the jury." *New Idea Farm Equip. Corp. v. Sperry Corp.*, 916 F.2d 1561, 1567 (Fed. Cir. 1990); *see also Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 638 (Fed. Cir. 2011); *Siemens Med. Sols. USA, Inc. v. Saint-Goban Ceramics & Plastics, Inc.*, 637 F.3d 1269, 1278 (Fed. Cir. 2011); *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1304 (Fed. Cir. 2006) (en banc in relevant part). In reviewing jury instructions, the court must consider the entire trial record, because "instructions take on meaning from the context of what happened at trial, including how the parties tried the case and their arguments to the jury." *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.* 62 F.3d 1512, 1522 (Fed. Cir. 1995), *rev'd on other grounds*, 520 U.S. 17 (1997).



## 1. Burden of Proof

IOENGINE argues that the court's instructions to the jury were erroneous in several respects. First, IOENGINE contends that the court's instructions on conception and diligence "failed to correctly inform the jury that Ingenico bore the burden of proof." Dkt. No. 513 at 34.

IOENGINE acknowledges that on the issues of conception and diligence, the patentee has the burden of producing some evidence in order to raise those issues, but that after the patentee satisfies that burden of production, the patent challenger "must persuade the jury by clear and convincing evidence that its version of the facts is true." *Id.* (quoting *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1578 (Fed. Cir. 1996)). IOENGINE contends that the court never made clear to the jury that the ultimate burden on these issues rests with the challenger to prove its version of the facts by clear and convincing evidence.

The portion of the court's instructions on conception and diligence began with the statement that "Ingenico has the burden of providing invalidity by clear and convincing evidence, which as I've said before, means evidence that must leave you with a clear conviction or belief that the claims in question are invalid." Tr. 1293:9–12. The court then instructed the jury that "the date of the invention is the date on which the inventor conceived of the invention, as long as the inventor was diligent in reducing the invention to practice." Tr. 1294:18–19. The court defined conception and diligence, Tr. 1294:23–1295:17, and advised the jury, in accordance with the Federal Circuit's decisions in *Mahurkar*, 79 F.3d at 1577, and *Price v. Symsek*, 988 F.2d 1187, 1196 (Fed. Cir. 1993), that "[a]lthough an inventor can testify about when he conceived of the invention, there must be some evidence beyond the inventor's own testimony that confirms the date on which the inventor had the complete idea," Tr. 1295:7–11, and that "[a]s in the case of conception, there must be some evidence beyond the inventor's own testimony that confirms the inventor's diligence," Tr. 1295:17–20.

The court then advised the jury that “IOENGINE’s contention is that the date of the invention is no later than July 26th, 2001,” and that “Ingenico’s contention is that the date of the invention was March 23, 2004.” Tr. 1296:20–23. The consequence of the jury’s decision on that issue, the court explained, was that if the jury concluded that the invention was made as of July 26, 2001, “then any product or method that was first publicly known or used in the United States after that date wouldn’t be regarded as coming before the invention.” Tr. 1296:25–1297:4. On the other hand, the court explained, if the jury concluded “that the invention was made as of March 23, 2004, as Ingenico claims, then any product or method that was known to or used by others in this country before that date would be prior art to the invention.” Tr. 1297:5–9. The court then instructed the jury that “[w]hatever the date of invention, Ingenico must prove by clear and convincing evidence that the prior art item predated the claimed invention.” Tr. 1297:14–16.

IOENGINE contends that the court’s instruction on the issue of pre-conception prior art would have led the jury to conclude that it was IOENGINE’s burden to prove conception and diligence. I disagree.

The instruction given by the court was based on the *Mahurkar* case, which specifies that the patent challenger “must persuade the trier of fact by clear and convincing evidence that the [purported prior art item] was published prior to [the inventor’s] invention date.” 79 F.3d at 1578; *see also* *Loral Fairchild Corp. v. Matsushita Elec. Indus. Co.*, 266 F.3d 1358, 1361 (Fed. Cir. 2001) (same); *AstraZeneca LP v. Breath Ltd.*, 88 F. Supp. 3d 326, 336–37 (D.N.J. 2015) (same); *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 585 F. Supp. 2d 568, 575–76 (D. Del. 2008) (“[T]he burden of proof remains on the defendant to establish by clear and convincing evidence that the patentee’s invention date does not precede the date of the ostensible prior art reference.”); *Japan Cash Mach. Co v. MEI, Inc.*, No. 2:05-cv-1433, 2009 WL 10316043, at \*15 (D. Nev. Sept. 18, 2009)

(“The burden of persuasion, which is one of clear and convincing evidence, that the patentee’s invention date does not precede the date of the alleged prior art reference remains with the defendant.”); *Spectralytics, Inc. v. Cordis Corp.*, 576 F. Supp. 2d 1030, 1045 (D. Minn. 2008) (“[T]he defendant must establish, by clear and convincing evidence, that the patentee’s invention date does not precede the date of the ostensible prior-art reference.” (emphasis omitted)).

Consistent with those authorities, the court’s instruction advised the jury that it could find invalidity only if it found that Ingenico proved by clear and convincing evidence that the prior art item pre-dated the invention. That instruction unambiguously provided that the burden of proof on invalidity by pre-conception prior art rested on Ingenico and could be met only by clear and convincing evidence. Thus, the jury was not misled into believing that IOENGINE bore the burden of proof on that issue.

Beyond that, the court instructed the jury several times that Ingenico had the burden of proof of providing invalidity by clear and convincing evidence with respect to each invalidity issue. Tr. 1283:4–19, 1286:23–1287:2, 1293:9–12, 1297:14–16, 1300:8–10, 1305:4–7. Moreover, in the court’s initial instructions to the jury at the beginning of the trial, the court twice explained that it was Ingenico’s burden to prove invalidity by clear and convincing evidence. Tr. 92:21–93:4, 93:25–94:2. The same point was made in the video presentation to the jurors by the Federal Judicial Center at the outset of the trial. Tr. 87:3–5. Finally, counsel for IOENGINE emphasized the clear and convincing evidence standard to the jury no fewer than 14 times during his closing argument, *see* Tr. 1319:24–1320:18 (four times), 1321:21–25, 1323:4–7, 1324:18–20, 1326:9–11, 1330:25–1331:20 (three times), 1334:4–8, 1368:8–13, 1369:24–1370:3, and the verdict form filled out by the jury twice referred to the clear and convincing standard with regard to the invalidity issues presented to the jury, *see* Tr. 1416:22–24, 1417:11–13. There was no suggestion in the court’s instructions or otherwise

that the burden of proof on invalidity was different in the one case of invalidity by pre-conception prior art.

One indication that the jury was not confused on this point is that counsel for IOENGINE clearly understood that the court's instruction on this issue imposed a requirement of clear and convincing evidence with regard to the date of conception. He said the following in his closing argument:

IOENGINE has no burden to prove that the Portable Devices Rule letter shows conception of the invention.

It says, to confirm his conception, Mr. McNulty simply needs to put forth some evidence beyond his own testimony. It's Ingenico that bears the burden of proof by clear and convincing evidence that any prior art item predated Mr. McNulty's invention date. That includes proving that Mr. McNulty is not entitled to his invention date in July of 2001, and all other aspects of invalidity.

In other words, Mr. McNulty and we do not need to convince you that he thought of his invention by July 26, 2001.

Instead, because Mr. McNulty has provided evidence in the form of a Portable Devices Rule letter, as well as Mr. Rzonca's testimony and other evidence we will look at in a minute, Ingenico must prove by clear and convincing evidence that Mr. McNulty did not conceive of his invention by July 26th, 2001.

Tr. 1330:20–1331:13.

Similarly, with respect to diligence, counsel for IOENGINE argued as follows:

Now, Ingenico also claims Mr. McNulty did not act with reasonable diligence in reducing his invention to practice. Once again, this is the defense Ingenico must prove by clear and convincing evidence.

More importantly, we saw the evidence of Mr. McNulty's evidence [sic: diligence]. As the Judge has explained, as long as there is some evidence of reasonably continuous work by Mr. McNulty between his conception in July of 2001 and his patent application—excuse me—in March of 2004, he is entitled to his July 2001 invention date.

...

But again, just like conception, the law does not require Mr. McNulty [to] convince you he was reasonably diligent. Instead, it's Ingenico's burden to convince—by clear and convincing evidence to prove to you that he was not.

Tr. 1331:17–1332:1; 1334:4–8.

Contrary to IOENGINE's argument in the present motion, it is clear that counsel for IOENGINE understood the court's instructions to require Ingenico to prove, by clear and convincing evidence, lack of conception by a date antedating the prior art, or lack of diligence thereafter. Counsel for Ingenico did not object to IOENGINE's closing argument on that point or take issue with IOENGINE's argument regarding the burden of proof during his own closing argument. The jury was therefore not misled by the court's instructions on that issue. *See Hilton Davis*, 62 F.3d at 1522 ("The words of the instructions take on meaning from the context of what happened at trial, including how the parties tried their case and their arguments to the jury.").

Relatedly, IOENGINE complains about the court's instructions defining conception and setting forth the parties' competing contentions as to when conception took place, on the ground that those instructions "suggest[ed] that IOENGINE had to prove conception and diligence by discussing them in terms of facts that must be shown by the inventor." Dkt. No. 513 at 35. There was no such suggestion in the court's jury charge. The instructions defined conception without reference to the burden of proof. *See* Tr. 1294:18–1295:1 ("The date of the invention is the date on which the inventor conceived of the invention, as long as the inventor was diligent in reducing the invention to practice. . . . [A]n invention is conceived when the inventor has a definite idea of the complete and operative invention, even if the inventor did not know for sure at the time that the invention would work."). The court instructed the jury that "[a]lthough an inventor can testify about when he conceived of the invention, there must be some evidence beyond the inventor's own testimony that confirms the date on which the inventor had the complete idea." Tr. 1295:7–11. The court then defined diligence for the jury, Tr. 1295:12–20, and explained the parties' competing theories as to the proper date of the invention, based on their positions with respect to conception and diligence, and the consequences for determining what constituted prior art. Tr. 1296:6–1297:9. And after that,

as noted, the court instructed the jury that Ingenico had to prove by clear and convincing evidence that the prior art item predated the claimed invention. Tr. 1297:14–16.

Nothing about those instructions suggested that IOENGINE bore the ultimate burden of proof on those issues. The accurate statement that there must be some evidence beyond the inventor’s own testimony that confirms the date on which the inventor had the complete idea for the invention did not in any way suggest to the jury that the ultimate burden of proof lay with IOENGINE.<sup>11</sup>

In sum, the court’s instructions did not fail to apprise the jury of the proper burden of proof in assessing the evidence of invalidity based on pre-conception prior art, nor did the court’s instructions misdirect the jury’s assessment of the evidence of conception and diligence.

## 2. Presumption of Validity

IOENGINE’s second complaint about the jury instructions is that the court “failed to instruct on the presumption of validity.” Dkt. No. 513 at 36. Citing no relevant authority, IOENGINE argues

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<sup>11</sup> In its reply brief, IOENGINE argues in passing that the court should not have instructed the jury on the issue of corroboration, but should have decided that issue itself. Dkt. No. 526 at 15. It is clear that on the issues of conception and diligence the patentee must introduce some evidence beyond the inventor’s own testimony. *Mahurkar*, 79 F.3d at 1577. District courts have frequently instructed juries on the issue of corroboration in that context. *See, e.g., Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 585 F. Supp. 2d 568, 582–83 (D. Del. 2008); *Solas OLED Ltd. v. Samsung Display Co.*, No. 2:19-cv-00152, 2021 WL 4950308, at \*22 (E.D. Tex. Oct. 25, 2021); *Glob. Traffic Techs., LLC v. Emtrac Sys., Inc.*, No. 10-4110, 2014 WL 1663420, at \*6 (D. Minn. Apr. 25, 2014), *rev’d in part on other grounds*, *Glob. Traffic Techs. LLC v. Morgan*, 620 F. App’x 895 (Fed. Cir. 2015). The Federal Circuit Bar Association’s Model Patent Jury Instructions recommend that the jury be instructed on the corroboration requirement with regard to conception, and in the joint proposed jury instructions in this case, IOENGINE requested that the jury be instructed on the need for corroboration of the inventor’s testimony regarding conception, using the language from the Federal Circuit Bar Association’s model instruction. The court’s jury instruction, to which IOENGINE now objects, tracked IOENGINE’s proposed instruction word for word. *Compare* Dkt. No. 445 at 36 *with* Tr. 1295:8–11. And although IOENGINE’s counsel raised the question whether the corroboration issue should be submitted to the jury, Tr. 1189:21–1190:6, counsel never objected to doing so, and he ultimately proposed an instruction that would have entailed submitting that question to the jury. *See* Tr. 1266:6–12. Accordingly, it was not error for the court to instruct the jury on the issue of corroboration.

that the court should have included an instruction explicitly referring to the presumption of validity. During the instruction conference, the court explained that the presumption of validity is embodied in the requirement that invalidity be proved by clear and convincing evidence, and that to add a separate instruction on the presumption of validity would be potentially confusing to the jury. *See* Tr. 1229:7–1230:15.

IOENGINE’s argument was squarely rejected by the Federal Circuit in *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1258–59 (Fed. Cir. 2004). In that case, the appellant made the same argument that IOENGINE has made here, and the Federal Circuit rejected it. The court of appeals explained that “the presumption of validity and heightened burden of proving invalidity ‘are static and in reality different expressions of the same thing—a single hurdle to be cleared.’” *Id.* at 1258 (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir. 1984)). Because the presumption is one of law, not fact, and does not constitute evidence to be weighed against the challenger’s evidence, the Federal Circuit concluded, “the district court did not err in declining to include a jury instruction on the presumption of validity because the jury applied the correct ‘clear and convincing evidence’ standard.” *Id.* at 1258–59; *see also* *BNJ Leasing, Inc. v. Portabull Fuel Serv., LLC*, No. 19-cv-156, 2022 WL 892747, at \*8 (S.D. Miss. Mar. 25, 2022); *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, No. 15-cv-1202, 2017 WL 959592, at \*6 (E.D. Tex. Mar. 13, 2017); *Calloway Golf Co. v. Acushnet Co.*, 778 F. Supp. 2d 487, 496 (D. Del. Apr. 21, 2011).

As I explained in the *Erfindergemeinschaft* case, the use of the phrase “presumption of validity” in the instructions to the jury “would add little to the jury’s understanding of the burden of proof on the validity issues” and “might be confusing to the jury, to the extent that the jury is required to consider both that phrase and the Court’s instructions on the burden of proof.” 2017 WL 959592,

at \*6. “At minimum, the use of the term ‘presumption’ would require a further definitional instruction by the Court, without leading to any greater insight on the jury’s part as to the nature of the burden of proof on the validity issues.” *Id.*<sup>12</sup>

### 3. Public Use

IOENGINE’s third objection to the court’s jury instructions relates to the court’s instruction on “public use” under section 102(b). IOENGINE argues that the court should have instructed the jury that an invalidating public use could be found only if “the claimed features of the invention are discernible from a prior art product that is accessible to the public.” Tr. 1271:7–11. That is, IOENGINE argues that the public use of the invention cannot be an invalidating “public use” within the meaning of section 102(b) of the Patent Act if members of the public could not have discerned the features of the product that corresponds to the limitations of the patent in suit.

The Supreme Court addressed this issue in the 1880s. In *Egbert v. Lippman*, 104 U.S. 333 (1881), the Court considered a case in which the inventor of a corset allowed a third party to wear the corset for several years before the inventor sought a patent on the invention. The Court held that the use of the corset, even though it was by only one person, was a public use. *Egbert*, 104 U.S. at

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<sup>12</sup> IOENGINE does not seek to distinguish, nor does it even cite, the governing *Chiron* case from the Federal Circuit on this point. Instead, it cites cases having nothing to do with the issue before the court. In its opening brief, IOENGINE cites only *Verizon Services Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1307 & n.7 (Fed. Cir. 2007), which stands for the proposition that an erroneous jury instruction must be prejudicial in order to warrant a new trial. In its reply brief, IOENGINE relies solely on a statement by the Supreme Court in *Microsoft Corp. v. i4i Limited Partnership*, 564 U.S. 91, 110 (2011), where the Court noted that courts of appeals prior to 1952 had observed that “the presumption of validity is ‘weakened’ or ‘dissipated’ in the circumstance that the evidence in an infringement action was never considered by the PTO.” That statement has nothing to do with the question whether a court errs if it does not instruct a jury on the presumption of validity in addition to the clear and convincing evidence standard.



337. That was so, the Court held, even though the public use did not reveal the details of the invention to the public. *Id.* at 336–37. The Court explained that

some inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye. An invention may consist of a lever or spring, hidden in the running gear of a watch, or of a ratchet, shaft, or cog-wheel covered from view in the recesses of a machine for spinning or weaving.

*Id.* at 336; *see also Hall v. Macneale*, 107 U.S. 90, 96 (1882) (The features of a safe were held to be in public use even though they were “hidden from view, after the safes were completed, and it required a destruction of the safe to bring them into view. But this was no concealment of them or use of them in secret. They had no more concealment than was inseparable from any legitimate use of them.”); *In re Blaisdell*, 242 F.2d 779, 783 (C.C.P.A. 1957) (“[T]he invention may be a small element, concealed by its nature, in a larger article; its presence may not be known to the user or purchaser of said article[.]”).

IOENGINE seeks to distinguish *Egbert* on the ground that the public use in that case was by the inventor himself, not by a third party. In fact, however, *Egbert* involved a public use by a party other than the inventor. Although that party used the corset with the inventor’s consent, she was not under any obligation of secrecy regarding the corset’s design. *See* 104 U.S. at 337. In that setting, the Federal Circuit has explained, when the inventor has “surrendered control of the invention to another, without explaining that the device was experimental, the public was entitled to believe that the device was in the public domain.” *Barry v. Medtronic, Inc.*, 914 F.3d 1310, 1330 (Fed. Cir. 2019).

In cases involving disclosure by a third party not under an obligation of confidentiality, courts have consistently rejected IOENGINE’s argument that a device is not in public use if its contents would not have been apparent to an ordinary user of the device. *See New Railhead*, 298 F.3d at 1297

(“The statutory phrase ‘public use’ does not necessarily mean open and visible in the ordinary sense; it includes *any use* of the claimed invention *by a person other than the inventor* who is under no limitation, restriction, or obligation of secrecy to the inventor.”) (emphases added); *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1570 (Fed. Cir. 1997) (agreeing that “the public need not have access to the ‘inner workings’ of a device [put in use by a party other than the inventor] for it to be considered ‘in public use’); *Dunlop Holdings Ltd. v. Ram Golf Corp.*, 524 F.2d 33, 36 (7th Cir. 1975) (Stevens, J.) (public use was established by “a noninforming public use of the subject matter of the invention” by a third party); *Cali v. E. Airlines, Inc.*, 442 F.2d 65, 68 (2d Cir. 1971) (“It is a matter of legal indifference that the ‘public’ use may be necessarily concealed from public awareness by the structure of the design or the manner of its use . . . . Public use by a third party, with or without the knowledge or consent of the patentee, will generally defeat the patent as readily as public use by the inventor himself.”); *Gillman v. Stern*, 114 F.2d 28, 31 (2d Cir. 1940) (L. Hand, J.) (a public use, “whether or not the patentee had consented to it,” is invalidating regardless of whether “the use informed the public so that they could profit by it”); *Art+Com Innovationpool GmbH v. Google Inc.*, No. 14-217, 2016 WL 9954312, at \*8 (D. Del. Sept. 9, 2016) (Dyk, J., sitting by designation) (rejecting the contention, in the case of a non-secret use by a third party, “that the public must be able to ascertain the individual elements of an invention for it to constitute a public use”), *aff’d*, 712 F. App’x 976 (Fed. Cir. 2017); *Phoenix Sols., Inc.*, 2010 WL 6032841, at \*7 (third-party’s system was operational more than a year before the patents in suit were filed; the “operational novelty of the invention” was not required to be “exposed to the public in order for the invention to be in public use.”); *see also Delano Farms Co. v. Cal. Table Grape Comm’n*, 778 F.3d 1243, 1247 (Fed. Cir. 2015) (“The question in a case such as this one is thus whether the actions taken by the inventor (or, as in this case, a third party) create a reasonable belief as to the invention’s public availability.”).

The same rule has been applied to cases involving the “on sale” bar to patentability: “[O]ur precedent holds that the question is not whether the sale, even a third party sale, ‘discloses’ the invention at the time of the sale, but whether the sale relates to a device that *embodies* the invention.” *J.A. LaPorte, Inc. v. Norfolk Dredging Co.*, 787 F.2d 1577, 1583 (Fed. Cir. 1986).

IOENGINE’s argument amounts to contending that the public use must be enabling in order to be invalidating. There is no such requirement recognized in the law. As the Federal Circuit has held, “the public use itself need not be enabling. . . . Rather, we must simply determine whether the public use related to a device that embodied the invention.” *Zenith*, 522 F.3d at 1356; *see also Dey, L.P. v. Sunovion Pharm., Inc.*, 715 F.3d 151, 1359 (Fed. Cir. 2013) (“[W]e do not ask for an enablement-type inquiry under section 102(b) . . . .”); *In re Epstein*, 32 F.3d 1559, 1568 (Fed. Cir. 1994) (“Beyond this ‘in public use or on sale’ finding, there is no requirement for an enablement-type inquiry.”); *Extang Corp. v. Truck Accessories Grp., Inc.*, No. 19-cv-923, 2022 WL 610451, at \*3 n.1 (D. Del. Feb. 18, 2022) (same).

IOENGINE cites several cases in support of its position, but those cases are directed to instances in which the allegedly prior public use has been subject to a promise of confidentiality or otherwise concealed. No such concealment or promises of confidentiality are at issue in this case, so much of the analysis in those cases is inapplicable here.

Two Federal Circuit cases cited by IOENGINE deserve close consideration on this point. In the first, *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958 (Fed. Cir. 2020), the district court granted summary judgment invalidating BASF’s patent. The invalidity ruling was based on the prior use, by a party other than the inventor, of a manufacturing process similar to the patented process. The Federal Circuit reversed. The court noted that “a secret process is not in the public domain in the first place.” *BASF*, 955 F.3d at 968. Upon review of the record, the court found that the evidence

that the third party's use of the process was concealed was sufficient to create a triable issue of fact on that issue. *Id.* at 967–68.

The *BASF* court acknowledged that the commercial exploitation of a process before the critical date of the patent on the process would normally be an invalidating use of the process, regardless of whether the use was by the inventor or by a third party.<sup>13</sup> *See id.* at 966 (citing *Elec. Storage Battery Co. v. Shimadzu*, 307 U.S. 5, 19–20 (1939)). But if the process were kept secret, the court observed, the results could be different in the two situations. Given the interests in encouraging prompt disclosure of inventions and preventing the effective extension of patents, the court explained that the commercial exploitation of a novel process by the inventor would be subject to the public use bar regardless of how little the public might have learned about the details of the invention. *Id.* at 967–68. In the case of commercial exploitation of a secret process by a third party, however, the court held that concealment of the novel process would not offend any of the interests protected by the “public use” bar. *Id.* That is, if the concealed use was by a third party, invalidating the inventor's patent would not serve the interests of requiring the inventor to disclose his invention promptly or preventing the effective extension of his patent. And because the concealment of a novel process by a third party does not deprive the public of something it has come to rely on as publicly available, application of the public use bar would not serve that interest either. *See id.* at 968.

Importantly, the court in *BASF* based its ruling on the principle that if a third party's use of a process was successfully concealed or hidden, it would be considered “inaccessible to the public.”

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<sup>13</sup> In the course of its opinion, the court in *BASF* took note of the well-settled exception to this principle that experimental use is not considered public use. 955 F.3d at 966 (citing *City of Elizabeth v. Am. Nicholson Pavement Co.*, 97 U.S. 126, 133–37 (1877)); *see also Barry*, 914 F.3d at 1328–31. There was no issue of experimental use presented in *BASF*, however, and there is likewise no issue of experimental use presented in this case.

*Id.* at 966. On the other hand, the court explained, if the use identified by the defendant “was not successfully concealed or hidden from those who lack any ‘limitation or restriction, or injunction of secrecy,’ then it is a public use within the meaning of § 102(b).” *Id.* (quoting *Egbert*, 104 U.S. at 336).

In the course of its analysis, the *BASF* court adopted the rule of *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2d Cir. 1946) (L. Hand, J.), which distinguished between the commercial exploitation of a secret process by an inventor and the commercial exploitation of such a process by a third party. *See BASF*, 955 F.3d at 968. The *Metallizing* court held that commercial exploitation of a secret process by the inventor is potentially invalidating. At the same time, as the Federal Circuit noted, the *Metallizing* court reaffirmed its holding in *Gillman v. Stern*, *supra*, that a third party’s exploitation of a secret process is not a “public use” of the process that would subject a later-filed patent to invalidation under the predecessor to section 102(b). Significantly, the court in *Gillman* was careful to distinguish between a secret use of an invention and “a public use which does not inform the art.” 114 F.2d at 31 (citing *Hall*, 107 U.S. at 97). As to the latter, the court held, a non-secret public use by a third party is invalidating even if the use does not inform the public of the nature of the product or process in question. The court explained that distinction as follows:

It is true that in each case the fund of common knowledge is not enriched, and that might indeed have been good reason originally for throwing out each as anticipations. But when the statute made any “public use” fatal to a patent, and when thereafter the court held that it was equally fatal, whether or not the patentee had consented to it, there was no escape from holding—contrary to the underlying theory of the law—that it was irrelevant whether the use informed the public so that they could profit by it. Nevertheless, it was still true that secret uses were not public uses, whether or not public uses might on occasion have no public value.

114 F.2d at 31; *see also* *Magnetics, Inc. v. Arnold Eng'g Co.*, 438 F.2d 72, 74 (5th Cir. 1971) (For purposes of “public use” under section 102(b), it is “irrelevant whether the use [by a third party] informed the public. . . . Neither [third party’s] work was kept secret, for, as the district court found, these operations were carried on openly by ordinary factory help, with no attempts made to hide the operations from their employees or visitors.”). Judge Hand’s discussion of the issue, expressly adopted by the Federal Circuit in *BASF*, makes it quite clear that a third party’s non-secret use of a product constitutes a “public use” for purposes of section 102(b) even if the inventive feature of the product, such as a corset, the inner workings of a safe, or the components of an electronic device were, by their nature, hidden from public view.

The second case relied on by IOENGINE, *Dey, L.P. v. Sunovion Pharmaceuticals, Inc.*, *supra*, is similar. In that case, as in *BASF*, the district court granted summary judgment invalidating a patent owned by the plaintiff based on a clinical trial conducted by a third party on a drug similar to the patented drug. The Federal Circuit reversed, holding that there was a triable issue of fact as to whether the clinical study on which the defendant based its invalidity defense was sufficiently confidential that it did not constitute a “public use” of the drug that was the subject of the study.

The *Dey* court explained that to decide whether a prior use constitutes an invalidating “public use,” a court is required to ask whether the purported use was “accessible to the public” or “commercially exploited.” 715 F.3d at 1355 (quoting *Invitrogen*, 424 F.3d at 1380). In determining what it means to be “accessible to the public,” the court explained that “the policies underlying the public use bar inform its scope and that one such policy is ‘discouraging the removal, from the public domain, of inventions that the public reasonably has come to believe are freely available.’” *Id.* (quoting *Tone Bros., Inc. v. Sysco Corp.*, 28 F.3d 1192, 1198 (Fed. Cir. 1994)). Other considerations noted by the court were whether there was any confidentiality obligation imposed on persons who

observed the use of the product or process, and whether the completed invention was “used in public, without restriction.” *Dey*, 715 F.3d at 1355 (quoting *Allied Colloids Inc. v. Am. Cyanamid Co.*, 64 F.3d 1570, 1574 (Fed. Cir. 1995)). Those formulations, the court explained,

are designed to capture the commonsense notion that whether an invention is accessible to the public or reasonably believed to be freely available depends, at least in part, on the degree of confidentiality surrounding its use: An agreement of confidentiality, or circumstances creating a similar expectation of secrecy, may negate a “public use” where there is not commercial exploitation.

*Id.* (cleaned up).

That principle applies regardless of whether the prior use is by the inventor or by an unaffiliated third party, the court observed. “[T]hird-party use accessible to the public is a section 102(b) bar.” *Id.* (quoting *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1334 (Fed. Cir. 2005)). To be “accessible to the public,” the use still must be publicly available, the court noted; “secret or confidential third-party uses do not invalidate later-filed patents.” *Id.* For that reason, the court stated, “we have applied section 102(b) to invalidate a patent based on third-party use when the third party made no attempt to maintain confidentiality or to deliberately evade disclosure; made no discernible effort to maintain the invention as confidential; or made no efforts to conceal the device or keep anything about it secret.” *Id.* (cleaned up). In the case before it, the court concluded that summary judgment was not appropriate because it was not clear that the allegedly anticipating prior art was used without restriction during the clinical study; i.e., there was evidence that its use was “controlled and restricted, rather than unfettered and public.” *Id.* at 1356.

Summarizing the applicable standard, the court in *Dey* quoted from *Netscape Communications Corp. v. Konrad*, 295 F.3d 1315 (Fed. Cir. 2002), in which the court explained that the patentee’s failure to monitor the use of his invention and his “failure to impose confidentiality agreements on those that used it was enough to place the claimed features of the invention in the

public's possession.” 295 F.3d at 1323. Applying that standard, the court then stated that “a reasonable jury could conclude that if members of the public are not informed of, and cannot readily discern, the claimed features of the invention in the allegedly invalidating prior art, the public has not been put in possession of those features.” *Dey*, 715 F.3d at 1359.

Contrary to IOENGINE's contention, that language from *Dey* does not mean that the public disclosure or commercial exploitation of a product or process, without any limitations on access or confidentiality restrictions, constitutes a public use only if the claimed features of the product or process are immediately apparent to members of the public. Instead, the *Dey* court made clear that the public use issue in that case turned on whether the measures taken to keep the details of the clinical study confidential, including the nature of the pharmaceutical product being tested, were sufficient to prevent knowledge of the product from becoming public in a manner that would trigger the public use bar. *Id.* at 1359. The same is true of *BASF*. See 955 F.3d at 968.

Other Federal Circuit cases are to the same effect. In *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1549–50 (Fed. Cir. 1983), the public use issue turned on the fact that the third party in that case deliberately chose to keep the process at issue as a trade secret; what was disclosed was only the commercial output of the process, while the process itself was protected by various measures to ensure confidentiality. The Federal Circuit in *Woodland Trust v. Flowertree Nursery, Inc.*, similarly noted that an asserted prior use by a third party would not be a bar “when that prior use or knowledge is not available to the public.” 148 F.3d 1368, 1371 (Fed. Cir. 1998). For that proposition, the court cited authorities standing for the principle that a third party's secret commercial activity more than one year before the patent applicant's filing date would not be a public use under section 102(b). See *id.* (citing, *inter alia*, *Garlock*, 721 F.2d at 1550, and *Baxter Int'l, Inc. v. COBE Lab'ys, Inc.*, 88 F.3d 1054, 1058–59 (Fed. Cir. 1996)). The cases cited above, including the cases



cited by IOENGINE, make clear that a third party's use of an invention will not be deemed public if it is secret, subject to a pledge of confidentiality, or experimental in nature. Otherwise, however, a third party's use of the invention will be deemed an invalidating public use even if the use does not disclose the details of the invention to the public. As Judge Hand noted in *Gillman v Stern*, 114 F.2d at 31, the key distinction in the case of a third party is between a public use "which does not inform the art" and a secret use. The former is invalidating, while the latter is not.

In its briefing, IOENGINE cites two district court cases, neither of which supports its argument. In *TQP Development, LLC v. 1-800-Flowers.com, Inc.*, 120 F. Supp. 3d 600 (E.D. Tex. 2015), the defendant suggested that a third-party use of the invention was a public use. The court disagreed, noting that the third party was under a confidentiality obligation with respect to the critical features of the invention, and that those features were not made public. In the related case of *TQP Development, LLC v. Intuit Inc.*, No. 2:12-cv-180, 2014 WL 2809841 (E.D. Tex. June 20, 2014), the court denied the defendant's contention, on summary judgment, that the claim in question was invalid under 35 U.S.C. 102(g) (2006), in light of a prior invention that was not suppressed or concealed. The court found that there was a dispute of material fact with regard to whether the prior invention was suppressed or concealed from the public and therefore was not invalidating under section 102(g). The court noted that when the "inner workings" of the invention are the essence of the invention, "it is those 'inner workings' that must not be suppressed or concealed in order for the invention to be prior art under section 102(g)." *Id.* at \*6. There was a dispute in that case as to whether the algorithm that was a critical component of the prior art was maintained as a trade secret and concealed from the public.

This case does not involve a confidentiality obligation, as in the *1-800-Flowers.com* case. Nor does it involve the suppression or concealment of prior art as a trade secret, which was the

disputed issue in the *Intuit* case, as there was no evidence that any component or feature of the DiskOnKey device, the firmware upgrade application, or the SDK was suppressed, concealed, or maintained as a trade secret.

At the oral argument on the JMOL and new trial motion, IOENGINE pointed the court to three other district court cases that it regarded as supportive of its position that non-secret but non-informative uses by third parties do not constitute “public uses” within the meaning of section 102(b). In fact, none of those cases support IOENGINE’s position. First, in *Parallel Networks Licensing, LLC v. International Business Machines Corp.*, No. 13-2072, 2017 WL 1045912, at \*9 (D. Del. Feb. 22, 2017), the court held that the defendant’s allegedly anticipating server was not in public use because the actions recited in the asserted claims were carried out “confidentially” by the defendant’s servers. Second, in *International Business Machines Corp. v. Priceline Group Inc.*, 271 F. Supp. 3d 667, 680–81 (D. Del. 2017), the evidence describing a prior art system did not create a genuine issue of material fact on the issue of public use because the evidence “only addressed what *could* be done in the future and never discussed any of the configurations that the [defendant’s expert] relie[d] on.” Third, in *TransWeb, LLC v. 3M Innovative Properties Co.*, 16 F. Supp. 3d 385, 395 (D.N.J. 2014), the question was whether a physical product sample was sufficient evidence that the processes used to manufacture that sample were in public use. In this case, none of the DiskOnKey’s functions were kept confidential from the purchasers of the DiskOnKey devices; the evidence relied on by Ingenico amounts to more than forward-looking statements about the DiskOnKey’s capabilities; and the asserted claims do not relate to manufacturing processes. The *Parallel Networks*, *IBM*, and

*TransWeb* cases are not inconsistent with the cases cited above and do not support IOENGINE's position that the jury was improperly instructed on the issue of public use.<sup>14</sup>

In sum, the public, non-experimental use of an invention, either by the inventor, by another with the consent of the inventor, or by an unrelated third party, bars the inventor from removing from the public domain an invention that the public has reasonably come to believe is freely available. *Dey*, 715 F.3d at 1355; *Baxter*, 88 F.3d at 1058 (quoting *Tone Bros.*, 28 F.3d at 1198). The Supreme Court embraced that position in *Shimadzu*, 307 U.S. at 19–20, where it held that in the absence of an obligation of confidentiality the public use bar applies in the same manner whether the public use is by the inventor or a third party. As the Court noted, the definition of public use, “formulated when the statute made only use by consent a bar, has been adopted in instances where the use was without

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<sup>14</sup> Following the oral argument on this motion, counsel for IOENGINE sent an unsolicited email to the court's law clerk seeking to elaborate on the arguments IOENGINE had made on this issue in its briefs and during the oral argument. In the email, IOENGINE's counsel cited seven cases, including two new cases not cited in IOENGINE's briefs or in the oral argument. For completeness, I will address the email even though its submission was procedurally improper.

IOENGINE's email argues that the Federal Circuit's decision in *Delano Farms Co. v. Cal. Table Grape Comm'n*, 778 F.3d 1243 (Fed. Cir. 2015), is a case of a third-party use of an invention that did not turn on the confidentiality of the use, but in which the court found no public use because the public could not discern the nature of the invention. In fact, the *Delano* case *did* involve uses of the invention that were secret and subject to pledges of confidentiality. See 778 F.3d at 1246–49 (referring to the confidentiality pledges and secret nature of the uses nine times in the course of the opinion). It was in that context that the court noted that the uses of the invention were not evident to the public—a fact that is important if the use in question is secret or subject to a pledge of confidentiality, but not otherwise.

IOENGINE's email goes on to characterize the Federal Circuit's *BASF* decision as standing for the proposition that third-party public use is not invalidating if it does not reveal the “inner workings” of the invention. To the contrary, what *BASF* holds is that a secret use by a third party is not an invalidating public use; it does not suggest that a non-secret use by a third party that is merely non-informing does not constitute a public use. The court's reference to not “extending the *Metallizing* rule to third-party public use,” 955 F.3d at 968, refers to not treating secret third-party use as an invalidating public use. As noted above, courts have been careful to distinguish between secret uses and non-informing public uses.

consent or knowledge of the applicant for patent.” *Id.* at 19–20. The Federal Circuit has consistently applied the same principle. *See Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1267 (Fed. Cir. 2008) (“An invention is in public use if it is shown to or used by an individual other than the inventor under no limitation, restriction, or obligation of confidentiality.”); *Minn. Min.*, 303 F.3d at 1301 (“Public use under 35 U.S.C. § 102(b) includes any use of the claimed invention by a person other than the inventor who is under no limitation, restriction or obligation of secrecy to the inventor.”); *Netscape*, 295 F.3d at 1320 (same); *Baxter*, 88 F.3d at 1058 (same); *In re Smith*, 714 F.2d 1127, 1134 (Fed. Cir. 1983) (same); *see also Pronova Biopharma Norge AS v. Teva Pharms. USA, Inc.*, 549 F. App’x 934, 940 (Fed. Cir. 2014) (“[O]ur case law . . . focuses on the limitations, restrictions, or secrecy obligations associated with a purported public use.”).

This case is entirely different from *BASF*, *Dey*, *Woodland Trust*, and *Garlock*, in that the manufacturers of the DiskOnKey did not conceal that product or its contents, nor did they otherwise seek to keep the contents of the product confidential. The same is true of the DiskOnKey firmware upgrade application and the DiskOnKey’s SDK capabilities. The product, the firmware upgrade application, and the SDK were all publicly available and commercially exploited by M-Systems. In fact, they were aggressively marketed. Thus, they were plainly in public use. The fact that a casual observer would not have been able to discern the inner workings of the DiskOnKey device or the firmware upgrade application is not enough to render the use of the device and the application non-public in nature.

For those reasons, the court’s instruction to the jury on public use was not erroneous for failing to distinguish between a public use by the inventor and a public use by third party under no obligation of secrecy to the inventor. In particular, based on the lack of evidence of a pledge of

confidentiality, the instruction was not erroneous for failing to state that the public use in question had to be “accessible” to the public by revealing all the features of the device to an ordinary observer.

#### **4. On Sale**

IOENGINE’s fourth objection to the court’s jury instructions relates to the on-sale bar. IOENGINE complains that the court’s instructions failed to advise the jury that an advertisement is not an offer for sale, and argues that the court’s failure to instruct on that issue requires a new trial. Dkt. No. 513 at 38.

During an exchange with the court immediately before the court’s instructions to the jury, IOENGINE requested that the court revise its instructions regarding the on-sale bar. First, IOENGINE suggested that the instructions be modified to indicate that an offer for sale is “an offer that the other party could make into a binding contract simply by accepting it.” Tr. 1273:3–6. Alternatively, IOENGINE proposed adding a statement to the instructions that “an advertisement is not an offer for sale.” Tr. 1273:10–14.

IOENGINE is correct that an offer generally must meet the requirements of a commercial offer for sale in order to satisfy the on-sale bar in section 102(b) of the Patent Act. *Medicines Co. v. Hospira, Inc.*, 827 F.3d 1363, 1374–80 (Fed. Cir. 2016) (en banc). The problem for IOENGINE is that the evidence did not present a question whether there was merely an offer to sell the DiskOnKey devices without any actual accompanying sales. There is no basis for dispute that the DiskOnKey devices not only were offered for sale but were actually sold in the United States prior to March 23, 2003. Moreover, there was no question that any sales that were made were commercial in nature; there was no evidence at trial of any transactions that could be considered non-commercial sales.

The critical question at trial, for purposes of the prior art determination, was whether the DiskOnKey devices that were sold during the period prior to the critical date contained the firmware

upgrade application and the SDK capabilities. Thus, the existence of an on-sale bar in this case did not depend on the definition of an offer for sale. Instead, it turned on what was in the products that were sold.

IOENGINE does not dispute that DiskOnKey devices were sold in the United States prior to the critical date of the '969 and '703 patents. *See* Dkt. No. 513 at 13. Instead, IOENGINE's argument at trial was that Ingenico failed to prove that the products sold in the United States prior to March 23, 2003, contained the firmware upgrade application and SDK capabilities necessary to trigger the on-sale bar. *See* Tr. 1368:15–1370:3.<sup>15</sup> With respect to that issue, as discussed in section II.A.1 above, the evidence was amply sufficient to show that the DiskOnKey devices that were sold to customers in the United States, at least as of November 8, 2002, included those features. Because the issue of validity turned not on whether particular conduct constituted an offer for sale, but instead on whether the DiskOnKey devices sold in the United States contained the firmware upgrade and the SDK capabilities, there is no force to IOENGINE's complaint that the court did not give the jury a sufficiently detailed instruction regarding the meaning of an offer for sale and that the court's failure to do so deprived IOENGINE of a fair trial.

Moreover, neither of IOENGINE's proposed instructions on this issue would have been helpful to the jury. IOENGINE's first suggestion, that the court instruct the jury that an offer for sale is "an offer that the other party could make into a binding contract simply by accepting it," standing by itself, would have been potentially confusing to the jury, as it would have left hanging in the air the questions of what constitutes a binding contract and what constitutes a manifestation of

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<sup>15</sup> In his closing argument, Ingenico's counsel pointed to the M-System sales spreadsheets (DX316 and DX317) listing numerous U.S. sales of the DiskOnKey in late 2002 and early 2003. Tr. 1358:5–1359:8. In its rebuttal argument, IOENGINE did not dispute that the evidence showed those sales were made.

acceptance sufficient to create such a binding contract. Those questions would be likely to puzzle a lay jury, at least without substantial supplemental instructions.

IOENGINE's second suggestion, that "an advertisement is not an offer for sale" would likewise have invited confusion, for two reasons. First, the M-Systems press releases announcing the firmware upgrade in July 2002, DX097, and the availability of SDK capabilities in September 2002, DX307, were not offers for sale, but were merely announcements of the availability of those features for the DiskOnKey. Moreover, in discussing the July 2002 M-Systems press release in his closing argument, Ingenico's counsel did not contend that the press release itself was an offer for sale, but instead argued that the press release provided evidence that the DiskOnKey devices were available for sale and could be purchased "through partners like Apple and Compaq and Dell and Targus." Tr. 1360:16–22 (referring to DX097). Counsel made a similar argument with respect to a Fuji Photo Film U.S.A. press release dated July 10, 2002, which stated that the DiskOnKey was "currently available through major partners in North America, Asia and Europe." DX180. Counsel characterized that press release as "the Fuji Photo indication that they're selling DiskOnKeys." Tr. 1361:15–16. There was no reference in counsel's argument to any "advertisements" for the DiskOnKey or any suggestion in the argument or the evidence that any such advertisements would constitute potentially invalidating offers for sale.

Second, the proposed instruction would have required the jury to struggle over what constitutes a mere advertisement and what sorts of promotional activities might satisfy the legal requirements to be deemed an offer for sale. Given the strength of the evidence of actual sales and the focus of the parties on what was in the products that were sold rather than whether there were any offers for sale unconnected to actual sales, an instruction along the lines of those proposed by

IOENGINE would have added no value to the jury's consideration of the evidence in this case and would have risked adding complexity and confusion to an already dense set of legal instructions.

There are two other points to be made regarding IOENGINE's argument as to the on-sale bar. First, IOENGINE argues that there was no direct evidence indicating that there was an actual sale of a particular DiskOnKey device that satisfied each element of the asserted claims. But that point, which is discussed in detail in section II.A.2 above, would not have been resolved by an instruction regarding what constitutes an offer for sale for purposes of section 102(b). Second, IOENGINE raises the same point it raised with respect to the "public use" instruction: that a third party's sale of a product that did not reveal all the limitations of the product to a user cannot be invalidating under section 102(b). For the reasons discussed with respect to the "public use" instruction in section III.A.3 above, that argument is unpersuasive.

The court's instructions to the jury on the on-sale component of section 102(b) were therefore not erroneous and did not improperly lead the jury to find that M-Systems' activities with regard to the DiskOnKey devices during late 2002 and early 2003 rendered the asserted claims of the '969 and '703 patents invalid under the on-sale bar, even if those activities did not constitute sales or offers to sell those devices.

## **B. IPR Estoppel**

IOENGINE next argues that because of IPR estoppel, as provided for in 35 U.S.C. § 315(e)(2), the court should have prohibited Ingenico from relying on the DiskOnKey firmware upgrade application at trial. Under section 315(e)(2), when an IPR proceeding results in a final written decision by the PTAB, the party that petitioned for IPR may not argue in a subsequent district court proceeding that the claims challenged in the IPR proceeding are "invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review."



Prior to trial, IOENGINE moved for summary judgment of no invalidity, arguing that Ingenico should not be allowed to rely on numerous documents that Ingenico either raised or reasonably could have raised in its petitions for IPR of the '969 and '703 patents. Dkt. No. 361 at 8–16. IOENGINE also argued that Ingenico should be precluded from relying on two “device art” invalidity theories, including one based on the DiskOnKey device, because in IOENGINE’s view those theories were based on publications that Ingenico either raised or reasonably could have raised during the IPR proceeding. *Id.* at 17–21.

In ruling on IOENGINE’s motion, I held that Ingenico would be precluded from relying on several categories of documents that it raised or reasonably could have raised in the IPR proceeding as printed publication prior art. Dkt. No. 449 at 58–61. One category of documents I prohibited Ingenico from relying on was “documentation related to [the] DiskOnKey upgrade software and numerous other Western Digital Documents.” *Id.* at 61 n.21 (citing Dkt. No. 361 at 15–16 & Appendix V). Although that category included the DiskOnKey Upgrade ReadMe documents, *see* Dkt. No. 361, Appendix V, at 2, I ruled that Ingenico would not be precluded from relying on those documents “to the extent . . . that they form part of a substantively different combination of references that could not reasonably have been raised in the IPRs.” Dkt. No. 449 at 61.

With respect to Ingenico’s argument based on the DiskOnKey itself, I permitted Ingenico to rely on the DiskOnKey as device art because IOENGINE had not established that each of the documents on which Ingenico sought to rely was publicly available (i.e., was a printed publication) that would have been a proper ground of invalidity in an IPR proceeding. Dkt. No. 449 at 63. I further held that “Ingenico is not estopped from relying on device art if, as it appears here, that device is not simply a printed publication invalidity theory in disguise,” and that the device art may be combined with other printed publications as long as the combination is “substantively different from

the grounds that were raised or reasonably could have been raised by Ingenico in its petitions for IPR.” *Id.* at 64.

IOENGINE argues that the DiskOnKey device art, as Ingenico presented it at trial, was effectively “a printed publication invalidity theory in disguise.” Dkt. No. 513 at 38. More specifically, IOENGINE argues that Ingenico relied primarily on the DiskOnKey Upgrade ReadMe document, which Ingenico admitted was originally a public document but was no longer publicly available at the time Ingenico filed its IPR petitions. IOENGINE also argues that the other documents relating to the DiskOnKey that Ingenico introduced did not create a substantively different ground of invalidity from the DiskOnKey Upgrade ReadMe document, which Ingenico could have raised as prior art in its IPR petitions.

With the benefit of the evidence presented at trial, I find that IOENGINE’s argument improperly discounts the other evidence relied upon by Ingenico with respect to the DiskOnKey device. For example, Ingenico relied at trial on an M-Systems presentation, DX336, which IOENGINE has not argued is a printed publication.<sup>16</sup> That presentation included a reference to “public key infrastructure,” along with a statement that the DiskOnKey contains an “ARM 7 microprocessor.” DX336.4. Neither of those features is discussed in the ReadMe document, *see* DX331, yet the evidence of both of those features added substance to Ingenico’s invalidity case. Ingenico relied on the public key infrastructure as evidence that the DiskOnKey facilitated authentication. The capacity for authentication, Ingenico argued, satisfied the “verification” limitation of claim 3 of the ’969 patent and claims 56 and 105 of the ’703 patent. Ingenico also relied on the ARM 7 microprocessor in the DiskOnKey device as evidence that the DiskOnKey contained

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<sup>16</sup> Notably, the presentation at DX336 is marked with a “Confidential - Attorneys’ Eyes Only” designation.

a processor, which is a required element of the “portable device” recited in each of the asserted claims.

IOENGINE argues that Ingenico’s demonstration at trial of the firmware upgrade application “added nothing to the ReadMe” because the application was not actually able to run a firmware upgrade during the demonstration. Dkt. No. 514 at 39. Although the demonstration did not show a complete upgrade process, the demonstration provided additional support for the proposition that the DiskOnKey firmware upgrade application was actually available and could have been used with a DiskOnKey device.<sup>17</sup>

In sum, the record at trial supports Ingenico’s argument that Ingenico’s DiskOnKey invalidity theory was device art that did not amount to “a printed publication invalidity theory in disguise.” *See* Dkt. No. 449 at 64. Accordingly, it was proper for Ingenico to rely on that prior art, including the DiskOnKey Upgrade ReadMe document, at trial. IOENGINE’s motion for a new trial based on its IPR estoppel argument is therefore denied.

#### **IV. Conclusion**

For the reasons set forth above, IOENGINE’s motion for judgment as a matter of law and for a new trial is DENIED.

In an abundance of caution, this order has been filed under seal because the parties’ briefs regarding the present motions were filed under seal. Within three business days of the issuance of this order, the parties are directed to advise the court by letter whether they wish any portions of the


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<sup>17</sup> At the oral argument on the present motion, IOENGINE acknowledged that Ingenico relied on “internal documents from M-Systems” as evidence of certain capabilities of the DiskOnKey, such as whether the DiskOnKey was able to execute “program code.” Oral Argument Recording at 15:38–17:22. That recognition further undercuts IOENGINE’s contention that Ingenico’s additional evidence regarding the DiskOnKey added nothing of substance to the information contained in the Readme document.

order to remain under seal. Any request that portions of the order should remain under seal must be supported by a particularized showing of need to limit public access to those portions of the order. Before making any requests to maintain particular portions of the order under seal, the parties should recognize that the transcript of the trial is in the public record, largely unredacted, and that the hearing on the motion for judgment as a matter of law and a new trial was conducted in public. Materials that were publicly disclosed either at trial or in the hearing should not be the subject of requests for redaction.

IT IS SO ORDERED.

SIGNED THIS 9th day of December, 2022.

A handwritten signature in black ink, reading "William C. Bryson". The signature is written in a cursive, flowing style. The first name "William" is written with a large, prominent "W". The middle initial "C." is written in a smaller, more compact script. The last name "Bryson" is written with a large, prominent "B". The signature is written on a white background.

WILLIAM C. BRYSON  
UNITED STATES CIRCUIT JUDGE